

In the Specification:

Please replace the paragraph at page 6, line 14 to page 7 line 13, with a replacement paragraph amended as follows:

The valve according to the invention shown in Fig. 4 comprises an inner valve flap 1 and an outer valve flap 3. The terms "inner" and "outer" have reference to a longitudinal central axis of an aircraft body 14 merely shown symbolically. Flap 1 is positioned more radially inwardly of the aircraft body 14 than flap 3. The interior pressure  $P_i$  prevails inside the aircraft body 14. The exterior pressure  $P_a$  prevails outside of the aircraft. Each valve flap 1 and 3 has a triangular or wedge-shaped sectional configuration formed by a body that substantially has a ~~[[prism]]~~ wedge shape 12. The first or inner flap 1 has a leading edge 8 facing in the flight direction FD as defined by the aircraft body 14. External air flows in a direction AFD opposite to the flight direction. The first or inner flap 1 has a trailing edge 8A and is hinged by a journal 2 to the aircraft body 14. The journal 2 is positioned closer to the trailing edge 8A than to the leading edge 8 of the flap 1. The leading edge 8 forms part of or is attached to a lateral narrow ~~prism or wedge~~ surface 12A and has a curved or rounded sectional configuration with a radius R that is preferably a single radius of a circle. However, the leading edge 8 having the curved sectional configuration, may also be formed by several radii depending on the desired aerodynamic shape of

4654/WGF:he

- 2 -

the leading edge 8. Additionally, the first or inner flap 1 has a radially inwardly facing wedge surface 10 and a radially outwardly facing wedge surface 11.

Please **replace** the paragraph at **page 7, lines 14 to 23**, with a replacement paragraph amended as follows:

The second flap 3 has a construction similar to that of the first flap 1. Fig. 4 shows that both flaps 1 and 3 are identical in their sectional configuration. More specifically, the second flap 3 also has a wedge-shaped sectional configuration with an inwardly facing surface 15 and an outwardly facing surface 16 and further including a leading edge 9 and a trailing edge 9A. The second leading edge 9 is preferably also aerodynamically shaped. However, the shape or cross-sectional configuration of the second leading edge 9 is not as critical as the aerodynamic shape of the leading edge 8 of the first flap 1 because the leading edge 8 forms part of a lead-in funnel into a nozzle inlet 6.

Please **replace** the paragraph at **page 8, line 6 to page 9 line 2**, with a replacement paragraph amended as follows:

The first journal 2 and the second journal 4 are spaced from each other in the flight direction FD and the first and second flaps 1 and 3 are so dimensioned, that an overlap area is formed between the leading end of the first flap 1 and the trailing end of the second flap 3. When the flaps 1 and 3 are in the open position as shown in Fig. 4,

a nozzle neck S is formed between the two flaps 1 and 3. The above mentioned nozzle inlet 6 is formed between the leading edge 8 of the first flap 1 and the inwardly facing surface 15 of the second flap 3. The nozzle inlet 6 converges toward the nozzle neck S. A nozzle exit 7 is formed downstream of the nozzle neck S by a facing surface portion 11A of the first flap 1 and by a facing surface portion 15A of the second flap 3. The surfaces 11 and 15 and their respective portions 11A, 11B and 15A, 15B are referred to as facing surfaces because these surfaces face each other at least in the overlap area formed by the nozzle inlet 6 and the nozzle ~~outlet~~ exit 7. The air flowing out of the nozzle ~~[[exits]]~~ exit 7 is indicated by the arrows 51 and generates a thrust indicated by the arrow T since in the nozzle the several air flows 5 are ~~integrated or~~ consolidated into a single air flow 51 that is accelerated in the nozzle to at least a sonic velocity preferably to a supersonic velocity that depends on a critical ratio of the external pressure  $P_a$  to the internal pressure  $P_i$ . This critical pressure ratio  $(P_a/P_i)_{crit}$  is approximately 0.527. Thus,  $(P_a/P_i) \leq (P_a/P_i)_{crit} \approx 0.527$ .

Please **replace** the paragraph at **page 9, lines 3 to 11**, with a replacement paragraph amended as follows:

According to the invention the ~~thrust~~ recovery of a thrust T at the nozzle exit 7 is more efficient than the ~~[[thrust]]~~ thrust recovery of conventional valves because the aerodynamic configurations of the present valve flaps 1 and

3, particularly in the overlapping area have a length in the air flow direction AFD sufficient for preventing flow separation from said first and second facing surfaces and for avoiding vortex formations particularly along the curved sectional configuration of the leading edge 8 of the first flap 1 to thereby reduce noise generation.

Please **replace** the paragraph at **page 9, lines 12 to 22**, with a replacement paragraph amended as follows:

The efficient aerodynamic characteristics of the present valve are further enhanced by the fact that a downwardly and outwardly facing surface portion 11B of the flap 1 and an inwardly facing surface portion 15B of the flap 3 form air guide surfaces the position of which can be controlled by the above mentioned drive mechanism. More specifically, the downwardly facing surface 11B forms a guide surface for the air flow 51 out of the nozzle exit 7. The surface portion 15B forms a guide surface for the air flow 5 into the nozzle ~~entrance~~ inlet 6. Thus, flow separation and vortex formation are substantially avoided upstream and downstream of the Laval nozzle 6, 8 and 7. Minor vortex formation that does not adversely affect the thrust recovery may be tolerated.

Please **replace** the paragraph at **page 9, line 23 to page 10 line 2**, with a replacement paragraph amended as follows:

Preferably, the nozzle neck 8 is positioned where the curvature of the leading edge 8 of the first flap 1 merges

into the downwardly facing surface portion 11A of the flap 1. This point and thus the nozzle neck S is aligned with the ~~[[prism]]~~ lateral wedge surface 12A.

Please **replace** the paragraph at **page 11, lines 7 to 11**, with a replacement paragraph amended as follows:

In a preferred embodiment the outwardly facing surface ~~portions~~ portion 11B of the first flap 1 and the outwardly facing surface portion 16 of the second flap 3 are formed with an aerodynamic surface that merges into the outer surface configuration of the skin of the aircraft body 14.

Please **replace** the paragraph at **page 11, lines 12 to 17**, with a replacement paragraph amended as follows:

It has been found that a semicircular cross-sectional configuration of the leading edge 8 of the first valve flap 1 ~~[[form]]~~ forms an efficient air-inlet funnel for guiding the air flows 5 into the nozzle inlet 6 which is formed by the curved sectional configuration of the leading edge 8 and by the inwardly facing portion 15B of the inwardly facing surface 15 of the second flap 3.

Please **replace** the paragraph at **page 12, lines 3 to 6**, with a replacement paragraph amended as follows:

Fig. 5 shows symbolically an embodiment in which the facing surfaces of flaps 1' and 3' are concavely curved to form the nozzle inlet 6 and the nozzle ~~outlet~~ exit 7 except the

nozzle neck S which is shown in the closed position in Fig.  
5.

**[RESPONSE CONTINUES ON NEXT PAGE]**

4654/WGF:he

- 7 -